



**METROPOLITAN  
TRANSPORTATION  
COMMISSION**

Joseph P. Bort MetroCenter  
101 Eighth Street  
Oakland, CA 94607-4700  
Tel.: 510.464.7700  
TTY/TDD: 510.464.7769  
Fax: 510.464.7848  
e-mail: info@mtc.ca.gov  
Web site: www.mtc.ca.gov

*James P. Spering, Chair*  
Solano County and Cities

*James T. Beall Jr., Vice Chair*  
Santa Clara County

*Keith Axtell*  
U.S. Department of Housing  
and Urban Development

*Jane Baker*  
Cities of San Mateo County

*Sharon J. Brown*  
Cities of Contra Costa County

*Mark DeSaulnier*  
Contra Costa County

*Dorene M. Giacomini*  
U.S. Department of Transportation

*Mary Griffin*  
San Mateo County

*Elibu Harris*  
Cities of Alameda County

*Tom Hsieh*  
City and County of San Francisco

*Mary V. King*  
Alameda County

*Steve Kinsey*  
Marin County and Cities

*Jean McCown*  
Cities of Santa Clara County

*Charlotte B. Powers*  
Association of Bay Area Governments

*Jon Rubin*  
San Francisco Mayor's Appointee

*Angelo J. Siracusa*  
San Francisco Bay Conservation  
and Development Commission

*Kathryn Winter*  
Napa County and Cities

*Sharon Wright*  
Sonoma County and Cities

*Harry Yabata*  
State Business, Transportation  
and Housing Agency

*Lawrence D. Dabms*  
Executive Director

*William F. Hein*  
Deputy Executive Director

**BAY BRIDGE DESIGN TASK FORCE  
ENGINEERING AND DESIGN  
ADVISORY PANEL  
Monday, May 18, 1998  
9 a.m. - 3 p.m.  
Joseph P. Bort MetroCenter Auditorium  
101 Eighth Street  
Oakland, California 94607**

**Chairperson:** Joseph Nicoletti  
**Vice Chair:** John Kriken  
**Staff Liaison:** Steve Heminger

**FINAL AGENDA - REVISED**

1. Welcome and introductions - Joseph Nicoletti, Chair, and John Kriken, Vice Chair
2. Approval of draft meeting record for April 15 meeting\*
3. Report on seismic safety issues - Frieder Seible and Bruce Bolt
4. Context for EDAP recommendations\* - Steve Heminger, MTC
5. Presentation and recommendations on bridge design alternatives\* - Brian Maroney, Caltrans:
  - a. Cable-stayed alternatives - David Goodyear and Tom Piotrowski, TY Lin design team
  - b. Self-anchored suspension alternatives - Herb Rothman and Don MacDonald, TY Lin design team
  - c. Schedules and costs - Rachel Falsetti, Caltrans
  - d. Visual simulations and summary - Rafael Manzanarez, TY Lin design team
6. LUNCH BREAK
7. EDAP discussion and recommendations:
  - a. Bridge type
  - b. Materials
  - c. Bicycle/pedestrian access
  - d. Continuing design review
  - e. Other matters
8. Other Business/Public Comment

---

\* Attachment sent to members, key staff, and others as appropriate. Copies available at meeting.

**Public Comment:** The public is encouraged to comment on agenda items at committee meetings by completing a request-to-speak card (available from staff) and passing it to the committee secretary or chairperson. Public comment may be limited by any of the procedures set forth in Section 3.09 of MTC's Procedures Manual (Resolution No. 1058, Revised) if, in the chair's judgment, it is necessary to maintain the orderly flow of business.

**Record of Meeting:** MTC meetings are tape recorded. Copies of recordings are available at nominal charge, or recordings may be listened to at MTC offices by appointment.

**Sign Language Interpreter or Reader:** If requested three (3) working days in advance, sign language interpreter or reader will be provided; for information on getting written materials in alternate formats call 510/464-7787.

**Transit Access to MTC:** BART to Lake Merritt Station. AC Transit buses: #11 from Piedmont or Montclair; #59A from Montclair; #62 from East or West Oakland; #35X from Alameda; #36X from Hayward.

**Parking at MTC:** Metered parking is available on the street. No public parking is provided.

**BAY BRIDGE DESIGN TASK FORCE  
Engineering and Design Advisory Panel  
April 15, 1998 Meeting  
Metropolitan Transportation Commission**

**Draft Record of Meeting**

**Panel Attendance**

Joseph Nicoletti (Chair), John Kriken (Vice Chair), Christopher Arnold, Bruce Bolt, Roger Borchardt, Robert Brown, Jerry Fox, Ben Gerwick, Jeffrey Heller, Ephraim Hirsch, I.M. Idriss, T.Y. Lin, Jim McCarty, Roumen Mladjov, Alexander Scordelis, Frieder Seible, Peter Taylor, Steve Thompson, Edward Wilson, and Thomas Wosser.

**Approval of draft meeting record for March 2 meeting**

The minutes were approved as presented.

**Preliminary ground motion report**

Bruce Bolt reported on the activities and findings of the Ad Hoc Committee on Ground Motion appointed by Caltrans. Reid Buell of Caltrans and Tom McNeeland of the Fugro West consulting firm reported on the geophysical information obtained from marine soundings and marine and land drilling along the northern adjacent alignment for the new eastern span.

**Presentation of bridge design alternatives**

The T.Y. Lin design team presented two schemes (single tower and double portal) for each of the cable-stayed and self-anchored suspension bridge alternatives. The presentations included reference to seismic performance, architectural features, construction materials, bicycle/pedestrian access, and night lighting for each of the schemes. The design team also answered numerous questions from EDAP. At the conclusion of the presentations, Brian Maroney of Caltrans made several comments about the bridge alternatives.

EDAP Chair Nicoletti and Vice Chair Kriken then led the panel in a roundtable discussion of the design team's presentation. EDAP comments included reference to the following issues: cable-stayed vs. suspension alternatives, single tower vs. double portal designs, length of the main span and placement of the tower(s), treatment of the Yerba Buena Island landing, design of the causeway section, connections between the causeway piers, placement of pile caps below water, need for additional seismic performance and cost information, choice of construction materials (steel, concrete, or composite), and bicycle/pedestrian path design.

At the conclusion of the discussion, EDAP approved a motion recommending that the design team place the pile caps above water but with careful attention to the design.

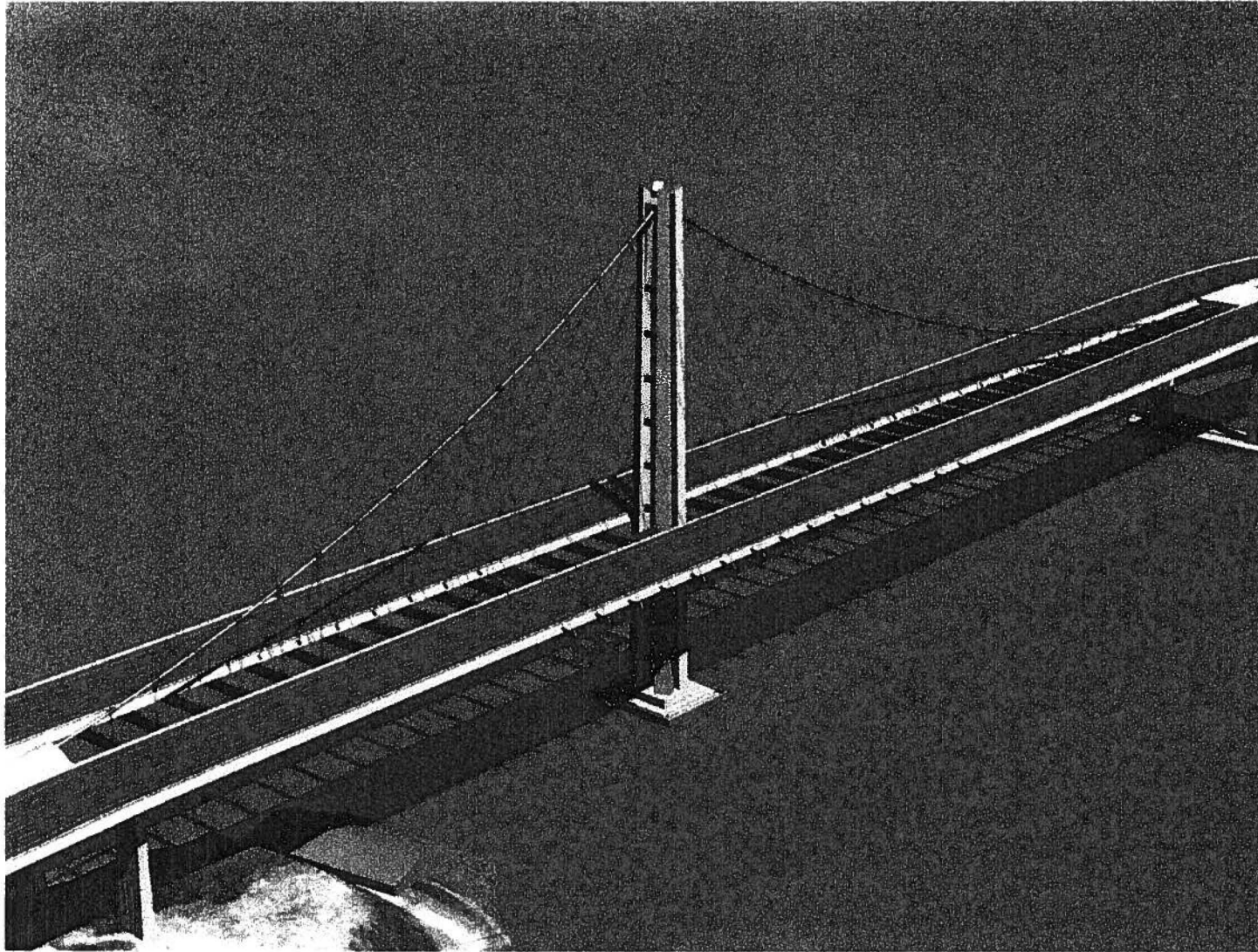
**Public Comment**

The following members of the public made comments during the public comment period:

Jack Robbins - regarding the project budget

Bryan Foster - requesting reconsideration of retrofitting the east span

Bill Smith - regarding bicycle/pedestrian access

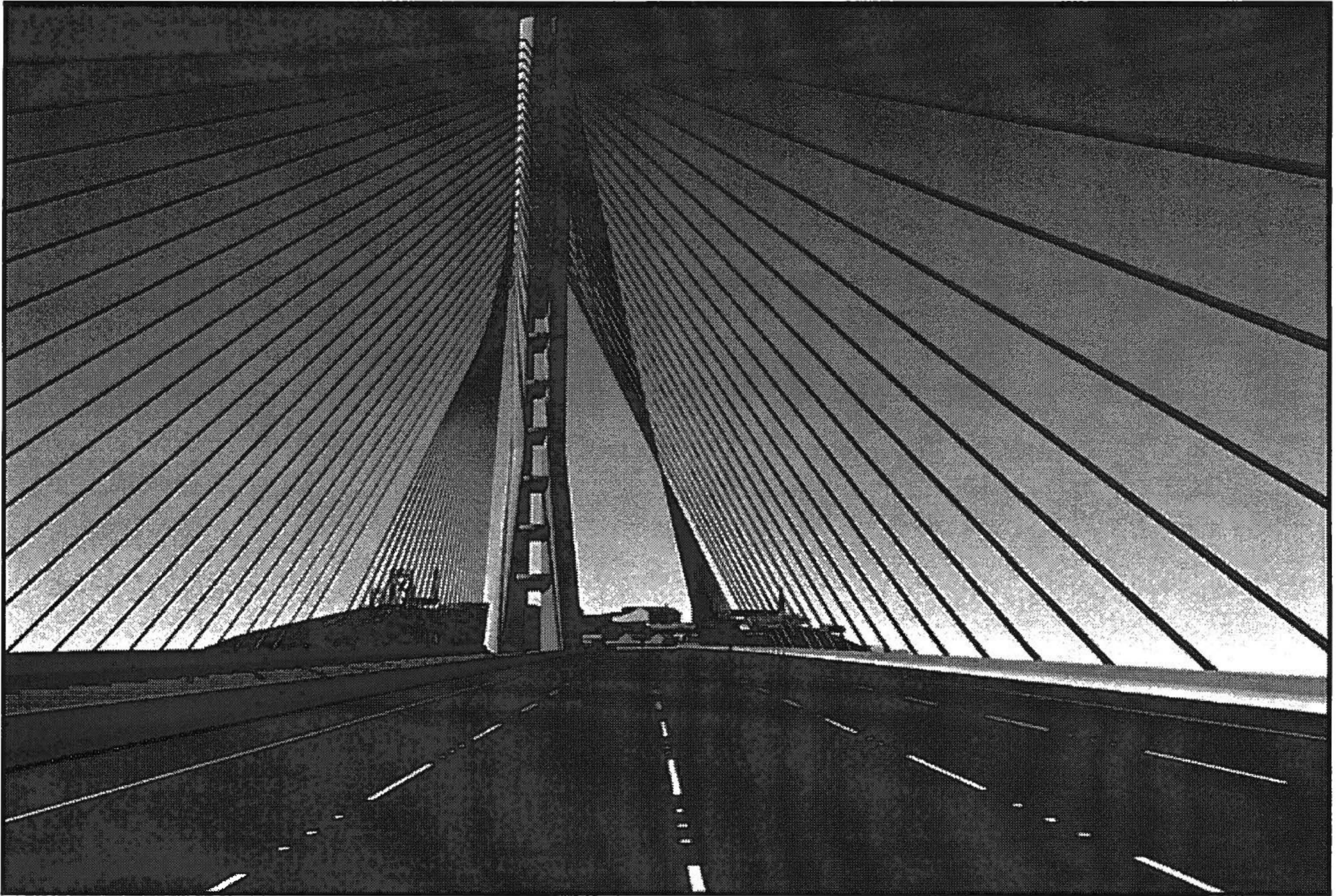


Revised Single Tower Suspension Design



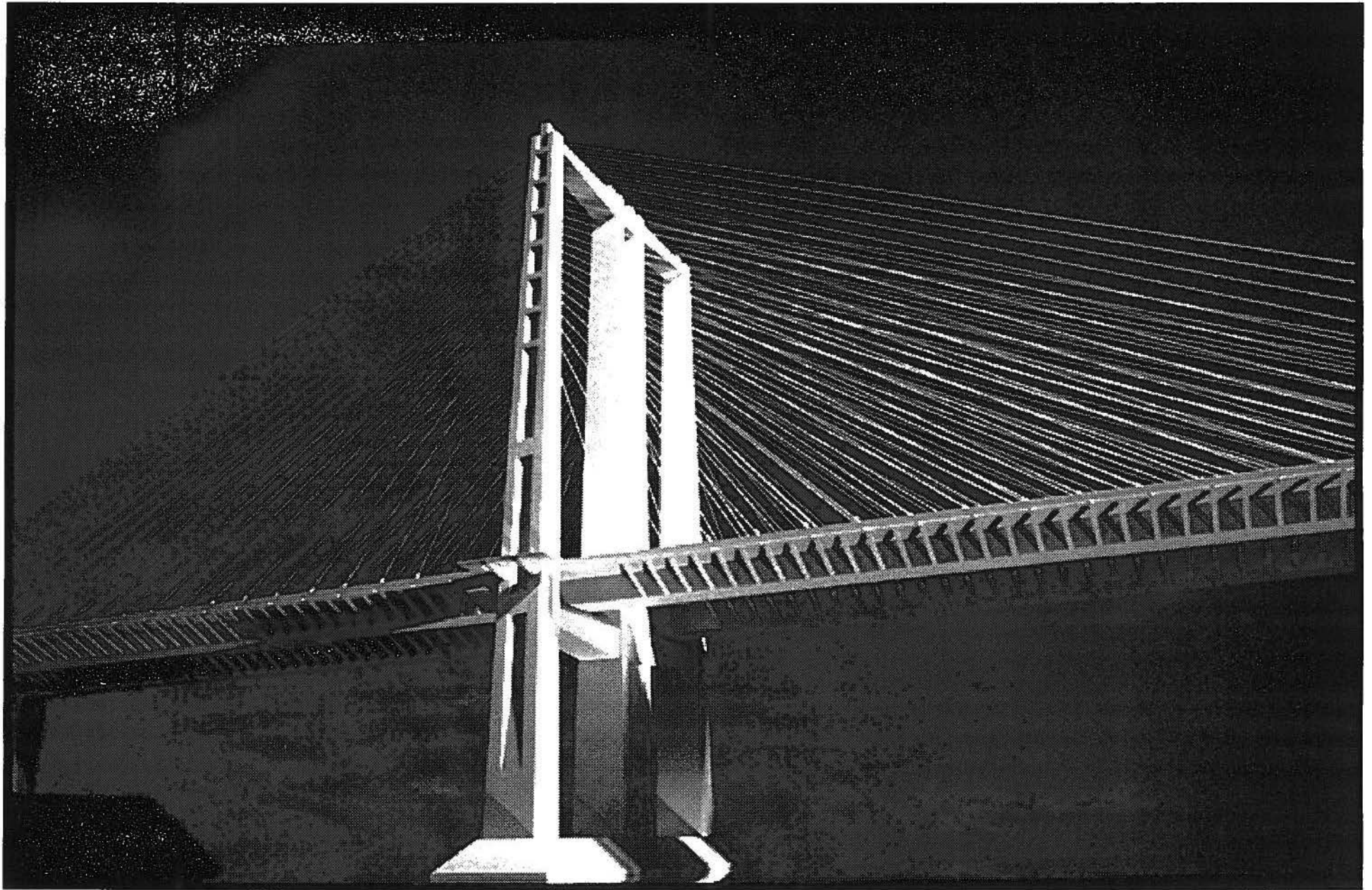


DOUBLE PORTAL SUSPENSION DESIGN



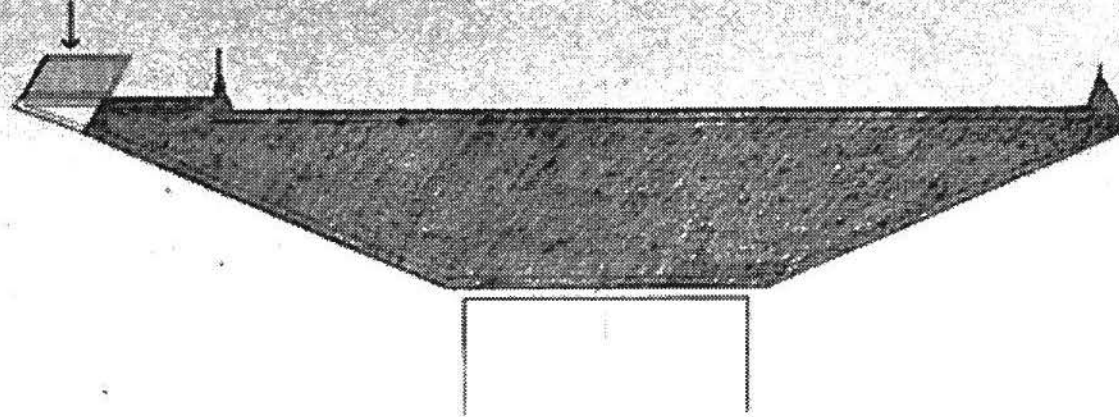
SINGLE TOWER CABLE-STAYED DESIGN



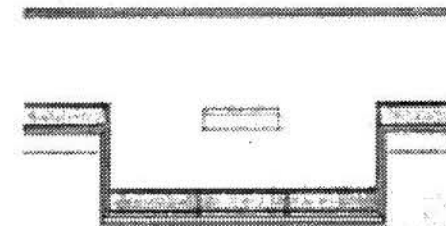
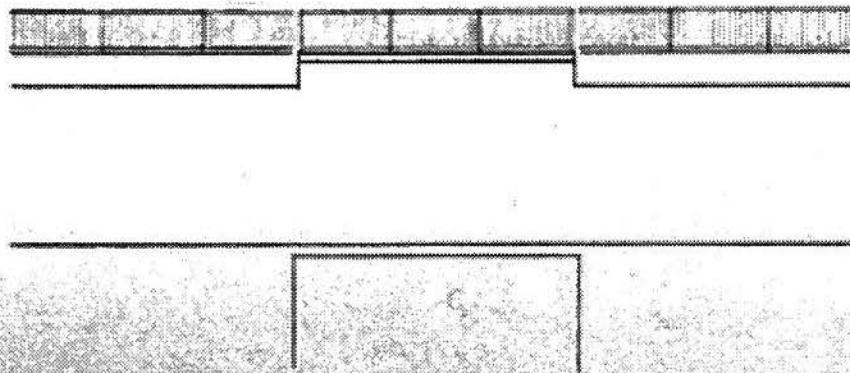


DOUBLE PORTAL CABLE-STAYED DESIGN

VIEWING PLATFORM



VIEWING PLATFORM

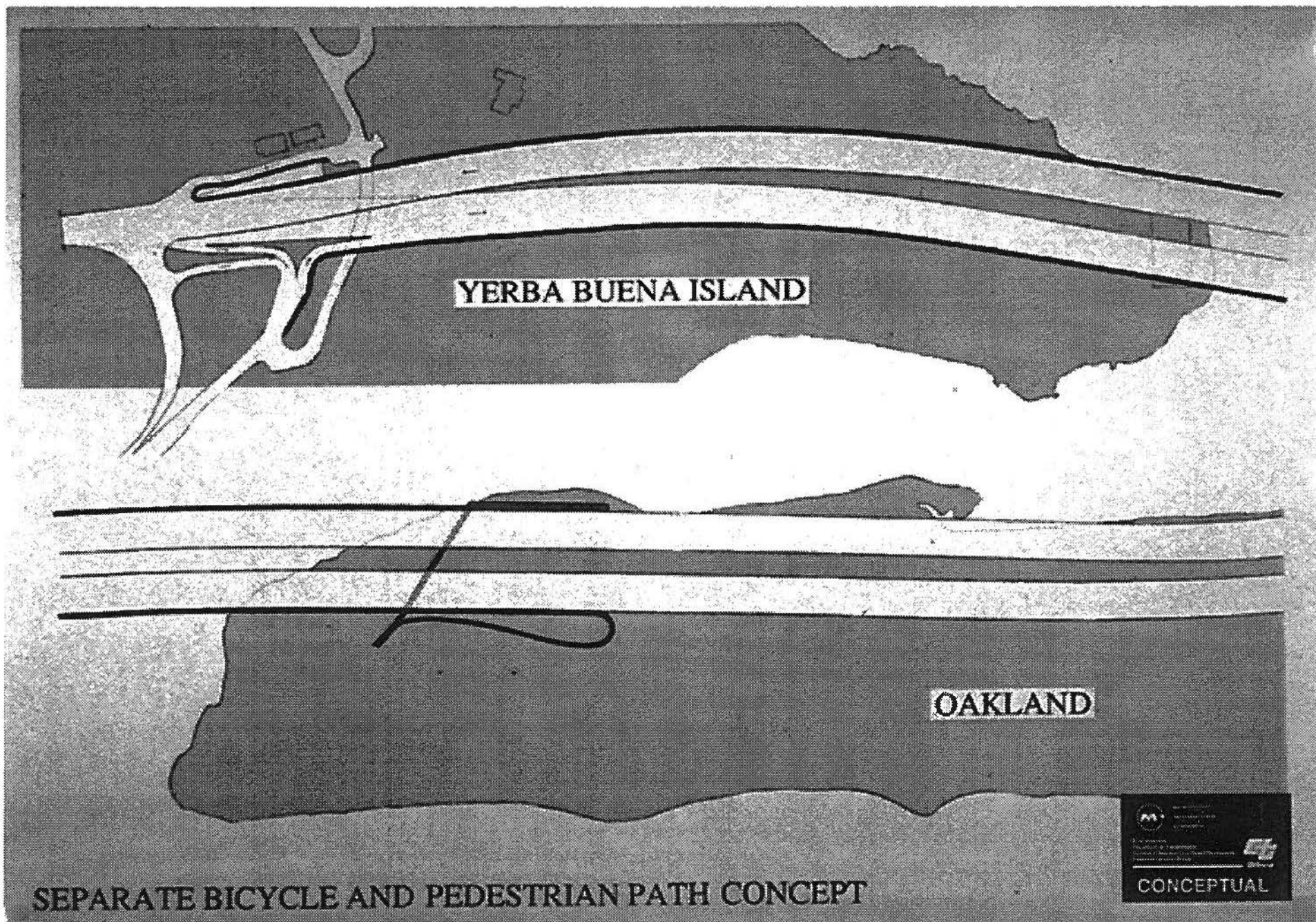


VIEWING PLATFORM

INTEGRAL BICYCLE/PEDESTRIAN PATH







SEPARATE BICYCLE AND PEDESTRIAN PATH CONCEPT







**METROPOLITAN  
TRANSPORTATION  
COMMISSION**

Joseph P. Bort MetroCenter  
101 Eighth Street  
Oakland, CA 94607-4700  
Tel: 510.464.7700  
TDD/TTY: 510.464.7769  
Fax: 510.464.7848

## *Memorandum*

TO: Engineering and Design Advisory Panel

DATE: May 11, 1998

FR: Steve Heminger

RE: EDAP recommendations on bridge type and bicycle/pedestrian access

At your meetings on May 18 and May 29, EDAP will be asked to finalize its recommendations on bridge type and bicycle/pedestrian access for the new eastern span. These recommendations will be presented by the EDAP Chair and Vice Chair to MTC's Bay Bridge Design Task Force at its meeting on June 10. Final action on these issues is scheduled for MTC's commission meeting on June 24.

The purpose of this memo is to provide two important elements of context for EDAP's forthcoming recommendations. The first is that, based on EDAP's advice, MTC adopted 17 planning and design recommendations for the new eastern span in July 1997 (see Attachment 1). These recommendations have guided the work performed by the design teams to date. We request that EDAP's next set of recommendations build on this first set of recommendations, and not revisit settled issues -- unless the terms of the earlier recommendation require subsequent action. For example, at your last meeting, EDAP acted to refine recommendation #15 because the earlier recommendation had suggested exploring the possibility of submerging the pile caps below water.

The second element of context for EDAP's recommendations is the budget for "amenities" on the new eastern span established by state law (see Attachment 2). The law defines "amenities" as the following three items: a cable-supported main span, bicycle/pedestrian access on the new span, or replacement/relocation of the Transbay Terminal in San Francisco. Under the law, the \$1 toll surcharge that took effect January 1, 1998 will remain in force for approximately eight years to pay the Bay Area's share of the entire toll bridge seismic retrofit program. MTC is authorized to extend the toll surcharge for an additional two years to pay for "amenities", which would generate \$230 million. The law also defines the cost of the new eastern span as \$1.285 billion, which includes \$80 million for a cable-supported main span. Thus, the total budget for Bay Bridge "amenities" is \$310 million (\$230 million + \$80 million).

EDAP will make recommendations regarding two of the three "amenities": a cable-supported main span and bicycle/pedestrian access. The third item, the Transbay Terminal, is being explored separately by MTC and last July the commission expressed a preference for reserving up to \$80 million for the Transbay Terminal project. Accordingly, EDAP should consider that its budget for the other two "amenities" is no greater than \$230 million (\$310 million - \$80 million).

MTC staff will be pleased to provide additional information or clarification of these matters at the EDAP meetings.



**PLANNING AND DESIGN RECOMMENDATIONS  
BAY BRIDGE EASTERN SPAN  
METROPOLITAN TRANSPORTATION COMMISSION  
July 30, 1997**

**Finance Recommendation (1)**

**Recommendation 1:** The Commission should support a two year extension of tolls and establish the priority for use of the estimated \$230 million as follows: first, for the additional costs for a cable-supported structure; second, for a portion of the cost of the Transbay Terminal; and third, a bicycle and pedestrian facility on the east span of the bridge should continue to be evaluated through the 30% design stage.

**Design Process (2 - 3)**

**Recommendation 2:** Caltrans should select two design teams to develop the two cable-supported alternatives to approximately the 30% design stage so that reliable information as to seismic performance, cost, visual design, and other issues can be obtained before a final recommendation is made.

**Recommendation 3:** The EDAP and Bay Bridge Design Task Force should remain in place through the 30% design stage of the project to make a final recommendation on bridge design type and thereafter to provide continuous review of final design and engineering details.

**Planning Recommendations (4 - 9)**

**Recommendation 4:** The existing eastern span of the Bay Bridge should not be retrofitted, but replaced with a new structure.

**Recommendation 5:** The new eastern span and existing western span retrofit should be designed to provide post-earthquake "lifeline" service.

**Recommendation 6:** The new eastern span should have 10 traffic lanes, five in each direction, with two standard 10' shoulders in each direction as part of its base cost.

**Recommendation 7:** The new eastern span does not require a dedicated bus/carpool lane. Caltrans' design should minimize weaving conflicts between high occupancy and other vehicles at the transition from the dedicated HOV approach lanes to the bridge itself.

**Recommendation 8:** The new eastern span should be designed in accordance with Caltrans' proposed design loading which will accommodate the possibility of future rail service.

**Recommendation 9:** The Yerba Buena Island ramps are an inherent part of the bridge and Caltrans has the responsibility to replace the ramps in order to assure safe traffic flow on the bridge.

### **Bridge Design Recommendations (10 - 17)**

**Recommendation 10:** The new eastern span should be built on the northern adjacent alignment.

**Recommendation 11:** The new eastern span should have a cable-supported main span with a single vertical tower with single or multiple legs in the transverse direction and single or multiple planes of supporting cables.

**Recommendation 12:** The new eastern span bridge should not be double decked. It should have two parallel separated decks on the causeway section and either parallel separated decks or a single deck on the cable-supported span.

**Recommendation 13:** The structural elements of the new eastern span should be visually consistent throughout.

**Recommendation 14:** The causeway section should have long, equal span lengths, although closer span lengths might be necessary just adjacent to the Oakland shore.

**Recommendation 15:** For the causeway section, particular attention should be paid to the design of the supporting pier as it enters the water, including the possibility of submerging the pile cap below water.

**Recommendation 16:** The cable or suspension tower on the eastern span should be no taller than the suspension towers on the existing western span.

**Recommendation 17:** The "diamond" shape for the tower base should not be employed in any cable or suspension tower on the eastern span.



(g) If the San Diego Association of Governments imposes tolls pursuant to subdivision (a), it shall reimburse the department for costs incurred by the department in operating the bridge, collecting tolls, and performing other related services. The association and the department shall enter into an agreement which provides for the full reimbursement of the department for all operating costs.

(h) The San Diego Association of Governments, not later than June 30, 1995, and not later than June 30 of each year thereafter, shall prepare an audit, to be funded solely with toll revenues, of all expenditures and revenue collected pursuant to this section. The first audit shall include all expenditures and revenue collected prior to January 1, 1995. A report of the audit shall be published and made available to the members of the San Diego Association of Governments, and to any member of the public who submits a written request therefor within 30 days upon receipt of the request.

SEC. 9. Section 30796.9 is added to the Streets and Highways Code, to read:

30796.9. (a) The San Diego Association of Governments shall deposit thirty-three million dollars (\$33,000,000) in the Toll Bridge Seismic Retrofit Account in the State Transportation Fund.

(b) On or before January 1, 1998, the San Diego Association of Governments shall submit to the Legislature and the department a financial plan for the transfer of thirty-three million dollars (\$33,000,000) on or before July 1, 2000, to the Toll Bridge Seismic Retrofit Account in the State Transportation Fund.

(c) Maintenance of the San Diego-Coronado Bridge shall be funded by the state pursuant to Section 188.4.

SEC. 10. Chapter 4.5 (commencing with Section 31000) is added to Division 17 of the Streets and Highways Code, to read:

#### CHAPTER 4.5. SEISMIC RETROFIT SURCHARGE

31000. The following definitions apply for purposes of this chapter:

(a) "Account" means the Toll Bridge Seismic Retrofit Account created pursuant to Section 188.10.

(b) "Amenities" means any of the following:

(1) A cable suspension bridge.

(2) A bicycle facility.

(3) A transbay terminal.

(c) "Authority" means the Bay Area Toll Authority.

(d) "Bay area bridges" means the state-owned toll bridges in the region within the area of the jurisdiction of the Metropolitan Transportation Commission.

(e) "Department" means the Department of Transportation.

(f) "Seismic retrofit" means all work completed by the department on the bay area bridges relating to the planning, design,

and construction of improvements to, or replacement of, those bridges for the purpose of withstanding seismic forces, including, but not limited to, any environmental or traffic mitigation necessary for that work.

(g) "Surcharge" means the seismic retrofit surcharge imposed pursuant to Section 31010.

31010. (a) There is hereby imposed a seismic retrofit surcharge equal to one dollar (\$1) per vehicle for passage on the bay area bridges, except for vehicles that are authorized toll-free passage on these bridges.

(b) This section shall remain in effect only until the date that the Secretary of State receives the notice required under subdivision (b) of Section 31050, or until January 1, 2008, whichever occurs first, and as of that date is repealed.

31015. (a) Revenues generated from the surcharge shall not exceed nine hundred seven million dollars (\$907,000,000), unless any of the following occurs:

(1) After completing 30 percent of the design, and after completion of a cost estimate by the department, the authority selects a design that costs more than the cost of a single tower cable suspension bridge selected by the department.

(2) The authority requests funding for the replacement or relocation of the transbay bus terminal in the City and County of San Francisco.

(3) The authority requests funding for a bicycle or pedestrian access that is to be added to the new bridge.

(b) If the authority does any of the things listed in paragraphs (1) to (3), inclusive, of subdivision (a), the local share of the project costs shall be increased by an amount equal to any additional costs that are incurred as a result of the authority's decision.

(c) The department shall include the amenities requested by the authority only if sufficient funds generated by the seismic retrofit surcharge are made available to fully pay for those amenities.

31020. Revenue generated from the surcharge shall be deposited in the account.

31050. (a) The department shall determine the date when all of the following have occurred:

(1) Sufficient funds, not exceeding nine hundred seven million dollars (\$907,000,000), have been generated for the completion of seismic retrofit and the replacement of the San Francisco-Oakland Bay Bridge.

(2) Sufficient funds have been generated to pay for any costs added under Section 31015.

(b) The department shall notify the Secretary of State of the date determined under subdivision (a); immediately upon making that determination.

**For Agenda Item No. 3**  
**See *Preliminary Marine Geotechnical Site***  
***Characterization and 30% Design Report***





Overwater Work Complete →

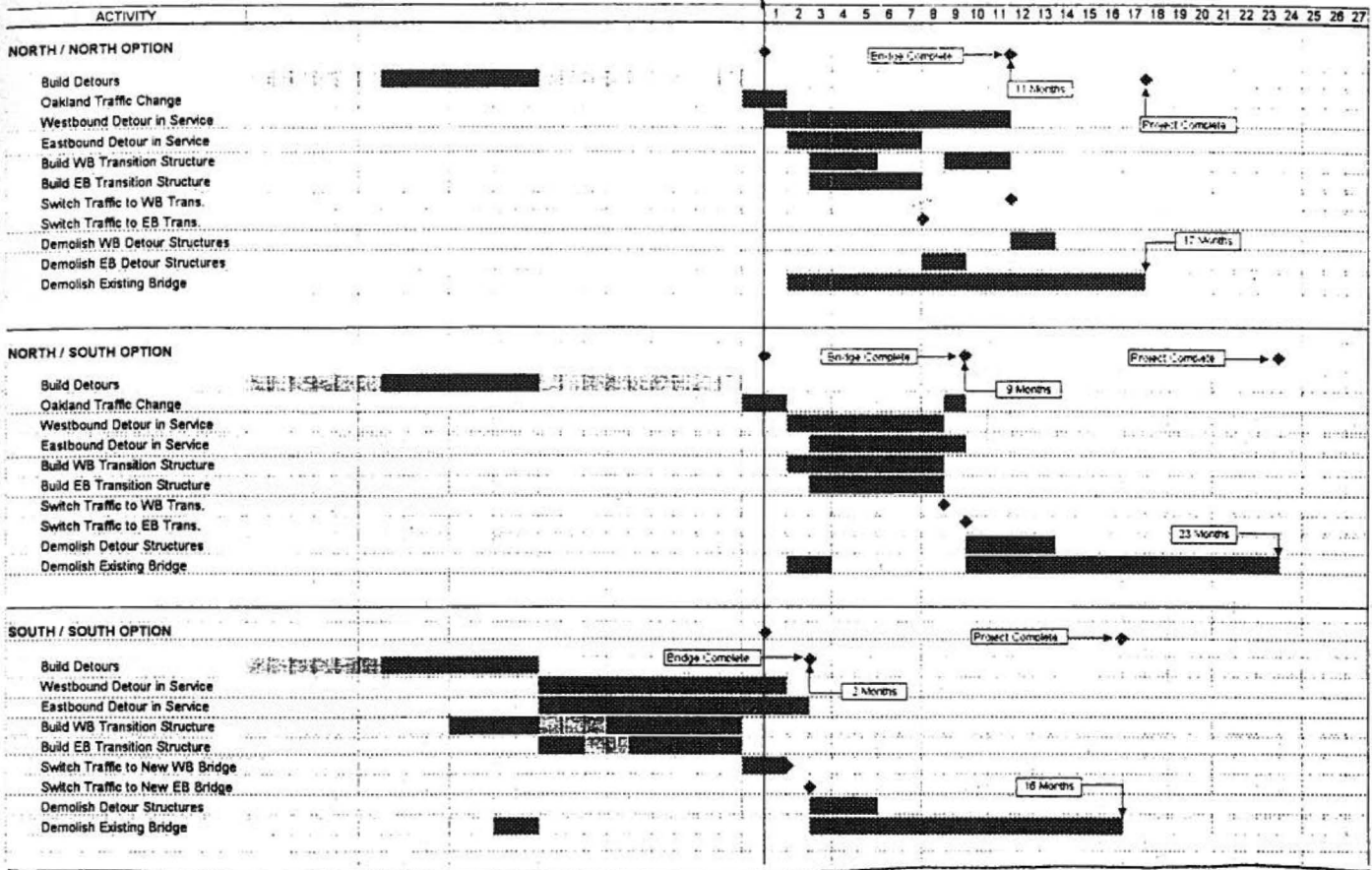


Figure 70. Schedule, Detour Options

**DRAFT**



**DRAFT**

**STRUCTURAL COMPONENT  
CONSTRUCTION COST ESTIMATES  
30% DESIGN LEVEL**

*for the*

**San Francisco-Oakland Bay Bridge  
East Span Seismic Safety Project**

**Contract No. 59A0040**

**Bridge No. 34-0006**

*Prepared for the*

**State of California  
Business, Transportation and  
Housing Agency**

*Submitted by*



**San Francisco, California**

**May 18, 1998**

# Engineering and Design Advisory Panel Bay Bridge Design Task Force

May 18, 1998 - 9:00 p.m.

## Public Sign-in Sheet

NAME	REPRESENTING	ADDRESS
1. PAUL GULBENKIAN	PRESTRESS SERVICE INTL.	430 TURK, #812 SAN FRANCISCO 94102
2. ADE AKINSANYA T.Y. Lin	Caltrans ADV. Panel	
3. Mah		
4. Sharon Naramore	Caltrans	1801 30 <sup>th</sup> St. 95618
5. JUAN FRANCISCO CARPIO Mayor Rm. Bulet	CALTRANS Emeryville	1801 30 <sup>th</sup> St. Emeryville 94608
6. Ismael Abu-Markha	Caltrans	1801 30 <sup>th</sup> St. Sack
7. Jason Meyer 510/273-9288	Bike the Bridge! Coalition <a href="http://xinet.com/bike">http://xinet.com/bike</a>	
8. Y.C. Yang	BCDC	
9. Joan Floss	FRIENDS & COLLEAGUES	107 S.F. 94115 TRESIDIO
10. Alex Scordelis	U.C. Berkeley Advisory Panel	

# Engineering and Design Advisory Panel Bay Bridge Design Task Force

May 18, 1998 - 9:00 p.m.

## Public Sign-in Sheet

NAME	REPRESENTING	ADDRESS
1. Marilee Mortenson	Caltrans	111 Grand Ave Oakland 94623
2. Rick WEDERHORN	PORT OF OAKLAND	530 WATER ST OAK 94607
3. Robert Chew	Just Say YES Foundation	PO Box 5423 Richmond Ca 94805
4.		
5.		
6.		
7.		
8.		
9.		
10.		

**ROSTER**  
**Engineering and Design Advisory Panel**  
**Bay Bridge Design Task Force**

**Chair: Joseph Nicoletti**

URS/John A. Blume and Associates  
100 California Street, Ste. 500  
San Francisco, CA 94111  
Telephone: (415) 774-2720  
Fax: (415) 398-1904

**Vice Chair: John Kriken**

Skidmore, Owings & Merrill  
1 Front Street  
San Francisco, CA 94111  
Telephone: (415) 981-1555  
Fax: (415) 986-4020

---

**Alschuler, Karen**

Simon, Martin-Vegue  
Winkelstein & Moris  
501 Second Street  
San Francisco, CA 94107  
Telephone: (415) 546-0400  
Fax: (415) 882-7098

**Fox, Jerry**

3 Whitehall Boulevard  
Garden City, NY 11530  
Telephone: (516) 742-4336

**Arnold, Christopher**

Building Systems Development,  
Inc.  
1248 Waverley  
Palo Alto, CA 94301  
Telephone: (650) 462-1812

**Gates, James H.**

California Dept. of Transportation  
P.O. Box 942874  
Oakland, CA 94274-0001

**Gerwick, Ben, Jr.**

Ben C. Gerwick, Inc.  
Consulting Engineers  
601 Montgomery Street  
San Francisco, CA 94111

**Bolt, Bruce A.**

University of California, Berkeley  
Seismographic Station  
499 McCone Building  
Berkeley, CA 94720

**Hall, John F.**

California Institute of Technology  
Mail Code 104-44  
Pasadena, CA 91125

**Borcherdt, Roger D.**

U.S. Geological Survey  
345 Middlefield Road  
Menlo Park, CA 94025-3591  
Telephone: (650) 329-5619

**Heller, Jeffrey**

Heller-Manus Architects  
221 Main Street, Ste. 940  
San Francisco, CA 94105-1923  
Telephone: (415) 247-1100  
Fax: (415) 247-1111

**Brown, Robert**

U.S. Geological Survey, MS-977  
345 Middlefield Road  
Menlo Park, CA 94025-3591  
Telephone: (650) 329-5620

**Hirsch, Ephraim Gordon**

E.G. Hirsch and Associates  
Pier 1-1/2 - The Embarcadero  
San Francisco, CA 94111  
Telephone: (415) 362-6373  
Fax: (415) 362-4332



**Idriss, I.M.**

Department of Civil Engineering  
University of California, Davis  
Davis, CA 95616

**Jones, Mary Margaret**

Hargreaves Associates  
539 Bryant Street  
San Francisco, CA 94107-1237  
Telephone: (415) 543-4957  
Fax: (510) 543-0516

**Keller, Jacque**

Keller Mitchell & Company  
111 New Montgomery St., Ste. 303  
San Francisco, CA 94105  
Telephone: (415) 546-9987  
Fax: (415) 546-9958

**Leventhal, Roger**

Levine Fricke Recon  
1900 Powell Street, 12th Floor  
Emeryville, CA 94608  
Telephone: (510) 596-9609  
Fax: (510) 652-4906

**Lin, T.Y.**

315 Bay Street, 3rd Floor  
San Francisco, CA 94133

**Lucia, Patrick**

Geo Syntech Consultants  
1600 Riviera Avenue, Ste. 420  
Walnut Creek, CA 94596  
Telephone: (415) 943-3034

**McCarty, Jim**

American Society of Civil  
Engineers  
6343 Estates Drive  
Oakland, CA 94611  
Telephone: (510) 339-2509  
Fax: (510) 339-2614

**Mladjov, Roumen**

Middlebrook & Louie  
Structural Engineers  
71 Stevenson Street, Ste. 2100  
San Francisco, CA 94105  
Telephone: (415) 546-4900  
Fax: (415) 974-3680

**Rollo, Frank**

Treadwell and Rollo  
Environmental and Geotechnical  
Consultants  
550 Montgomery Street, Suite 1300  
San Francisco, CA 94111

**Scordelis, Alexander C.**

University of California, Berkeley  
Department of Civil Engineering  
Davis Hall, Room 721  
Berkeley, CA 94720

**Seible, Frieder**

University of California-San Diego  
Mail Code 0085  
La Jolla, CA 92093-0085

**Smiley, Michael**

Land Planning Urban Design  
601 Van Ness Avenue, Box E3351  
San Francisco, CA 94105  
Telephone: (415) 389-6868  
Fax: (415) 389-6869

**Thompson, Steve C.**

Steve Thompson and Associates  
90 Adams  
Mill Valley, CA 94941  
Telephone: (415) 388-9630  
Fax: (415) 388-9650

**Tsai, Kuei-Wu**

Department of Civil Engineering  
San Jose State University  
One Washington Square  
San Jose, CA 95192  
Telephone: (408) 924-3902

**Wilson, Edward L.**  
1050 Leneve Place  
El Cerrito, CA 94530  
Telephone: (510) 524-4056

**Wosser, Thomas**  
H.J. Degenkolb Associates  
225 Bush Street, #1000  
San Francisco, CA 94104  
Telephone: (415) 392-6952

**Yang, Y.C.**  
131 - 16th Avenue  
San Francisco, CA 94108  
Telephone: (415) 989-8952

**Prof. Emeritus Manabu Ito**  
45-2 Sendati 5  
Bunkyo-KU, Tokyo  
113 Japan

**Mr. Klaus Ostefeld**  
COWI Consulting Engineers  
Parallelvej 15  
DK-2800 Lyngby  
Denmark  
Tel: +45 45 97 22 11  
Fax: +45 45 97 22 12

**Dr. Christian Menn**  
Plantweg 21  
CH-700 Chur  
Switzerland

**Dr. Peter Taylor**  
Bruckland & Taylor Ltd.  
1591 Bowser Avenue  
North Vancouver, B.C.  
Canada V7P 2Y4

*Note: The Engineering and Design Advisory Panel of the Bay Bridge Design Task Force is comprised of representatives from the following organizations (in some instances serving on more than one panel):*

- American Institute of Architects
- American Society of Civil Engineers
- Bay Conservation and Development Commission Design Review Board
- Bay Conservation and Development Commission Engineering Criteria Review Board
- Caltrans Peer Review Panel
- Caltrans San Francisco-Oakland Bay Bridge Review Panel
- Caltrans Seismic Advisory Board
- Structural Engineers Association of Northern California

## DEPARTMENT OF TRANSPORTATION

BOX 23660

OAKLAND, CA 94623-0660

(510) 286-4444



May 11, 1998

Mr. Steve Heminger  
Metropolitan Transportation Commission  
101 Eighth Street  
Oakland, CA 94607-4700

Dear Mr. Heminger:

Attached for your use are forty (40) sets of the preliminary type selection report for the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project. Each set consists of a report on the structural design prepared by T Y Lin International, Moffatt & Nichol, a Joint Venture ( This is an excerpt from the 30% Design Report) and a series of exhibits showing information on the marine geotechnical site characterization prepared by Fugro-Earth Mechanics, a Joint Venture.

Also attached are forty (40) copies of the bicycle/pedestrian options being considered for this project. Please include this with the forty sets described above.

If you have any questions, please contact Steven Hulsebus, Assistant Project Manager for the East Span Seismic Safety Project, at (510) 286-5085.

Sincerely,

HARRY Y. YAHATA  
District Director

by

for

BRIAN MARONEY  
Project Manager  
SFOBB East Span

Attachments



### Bicycle/pedestrian access

All designs include provisions for a bicycle/pedestrian path as an option. The bicycle/pedestrian path options under study are:

- A 12 foot (3.6 meter) wide path on the southside of the eastbound bridge at deck level and another variation with the path 2 feet below deck level
- A 10 foot wide (3.0 meter) path on the outer edge of the eastbound bridge and westbound bridge at deck level and another variation with the path 2 feet below each deck level

These options have been recommended for evaluation by the Bicycle/Pedestrian Advisory Committee, which has been formed to represent the user perspective in this process. This group has had many meetings with Caltrans and the Design Team. The Bicycle/Pedestrian Advisory Committee is waiting for the cost estimates for each of the options above before making a final recommendation for the new east span.